UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/578,874	05/11/2006	Thomas Ostrowski	290074US0PCT	8676

22850 7590 06/06/2011
OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, L.L.P.
1940 DUKE STREET
ALEXANDRIA, VA 22314

EXAMINER	
KEYS, ROSALYND ANN	

ART UNIT	PAPER NUMBER
1621	

NOTIFICATION DATE	DELIVERY MODE
06/06/2011	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentdocket@oblon.com
oblonpat@oblon.com
jgardner@oblon.com

RECORD OF ORAL HEARING

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte THOMAS OSTROWSKI, RAIMUND RUPPEL, EVA BAUM and KATHRIN HARRE

Appeal No. 2010-000697
Application No. 10/578,874
Technology Center 1600

Oral Hearing Held: February 8, 2011

Before DONALD E. ADAMS, LORA M. GREEN and STEPHEN WALSH, *Administrative Patent Judges.*

APPEARANCES:

ON BEHALF OF THE APPELLANT:

TEDDY S. GRON, ESQUIRE
Oblon, Spivak, McClelland, Maier &Neustadt, LLP
1940 Duke Street
Alexandria, Virginia 22314
(703) 413-3000

The above-entitled matter came on for hearing on Tuesday, February 8, 2011 commencing at 9:00 a.m., at the U.S. Patent and Trademark Office, 600 Dulany Street, Alexandria, Virginia, before Paula Lowery, Notary Public.

PROCEEDINGS

- - - - -

THE USHER: Good morning. Calendar Number 24, Appeal No. 2010-000697, Mr. Gron.

JUDGE ADAMS: Greetings.

MR. GRON: Your Honors, I have paper copies of the first claim in this case and the patent, if you would like me to give you paper copies, so you can look directly at them.

JUDGE ADAMS: We're good.

MR. GRON: May it please the Board, we have a rejection of all claims under 102 over as anticipated by O'Connor. O'Connor does not describe all the elements of the claim. That's the only rejection that we have.

The claim starts -- it's a very finicky reaction. The catalyst is such that sometimes it starts on time, sometimes it doesn't. It's exothermic.

Sometimes it poisons the reaction after a certain period of time, sometimes it doesn't.

But Applicants found the trick, I think, to getting the reaction to the steady state. That's the key. The invention is to get the reaction to the steady state as quickly as possible.

Therefore, they put in the initial charge, which may also be the starter, in combination with this DMC catalyst. Then they meter into the pot from 100 to 3,000 seconds an alkylene oxide from zero to the amount that's required for the steady state on a continuous reaction.

Now, simultaneous or thereafter, they meter in the starter substance. They meter that in at a specific rate. It's got to get -- within 5 to 500 seconds, it

has to have the metering rate. Then after they get the pot filled with product, they start pulling it off. They meter back in additional starter, additional alkylene oxide, and additional catalysts.

Now, the reason they would need additional catalysts is when they're drawing off the product, there's some catalytic residue in there. They've got to put it back in.

What does O'Connor show? It took a while to ask the Examiner what it shows because he wouldn't tell us. He would simply say look in the patent, there it is.

Well, we looked in the patent, and I kept on looking and looking and looking again in the patent; and I couldn't find all the steps. Specifically, I couldn't find the addition of the alkylene oxide in a time from 100 to 3,000 seconds and the addition of the starting material.

Now, there is a generic disclosure in O'Connor of a continuous process, and you'll find that at Column 14, Lines 26-50. It basically says it's possible that you can take our invention and apply it to a continuous process.

Now, there's nothing in there about metering in the alkylene oxide in any specific time. There's nothing in there about metering in the starter material. It just says it's possible, and possible is in line 49. It says process is possible.

So continuous processes of this type are known, and in Applicant's specification it says they are known. The real --

JUDGE ADAMS: Can I take you to Column 6 of the patent?

MR. GRON: Yes, Your Honor.

JUDGE ADAMS: Column 6, Line 33 -- in the 30s there between 30 and 35

-- it's talking about a reaction where you're adding DMC and you're adding a particular alkylene oxide, and it says you can meter this in. The "time can be minutes or hours depending on the catalyst" that you use.

MR. GRON: That's correct. It says depending on the catalyst, depending on the reactants, et cetera, it can be in minutes or hours.

Which one? We don't know. It depends on the system, and --

JUDGE ADAMS: So 100 seconds -- a little over a minute -- to 3,000 seconds, that's a range within that range that they talk about there, right?

MR. GRON: And one would think that you could do it in any range within minutes and seconds, except we have examples starting on page 10 of the specification. The examples say, basically in Example 1.1, that if you do it in five seconds -- each one of the additional added materials within five seconds -- it takes something like 25 passes in order to get up to constant rate.

JUDGE ADAMS: What happens when you get up to the minute? The patent says you can do it in minutes to hours, right?

MR. GRON: Well, it depends on how many minutes.

JUDGE ADAMS: Well, no matter how many minutes it is, it's still not five seconds, right? Didn't you say your example is five seconds?

MR. GRON: The first example is five seconds.

JUDGE ADAMS: Which examples show me minutes?

MR. GRON: The second example is on page 1.2, that is 7,200 seconds.

JUDGE ADAMS: What happens then?

MR. GRON: What happens is it takes 18 passes or 18 residence times in the reaction in order to establish a constant or steady state production.

The steady state production is very important because if you start putting in the various residual type materials in the first few minutes of the reaction, your product is going to be -- well, it's not going to be optimum. You're going to have residual materials in there that you don't want.

Now, that's 1.2. 1.3 is 600 seconds. Look at the difference. After five residual times or residence times, we are able to get up to steady state.

Then it goes to Example 1.4. Again, we go to five seconds, five seconds, five seconds. In five seconds each time, it takes 25 residence times on page 12, the last line.

Then we go to Example 1.5, 8,000 seconds, 23 residence times. These are periods of time for checking the product to see how uniform the product is.

However, if we get to Example 1.6 --

JUDGE ADAMS: What's the residence time, again, for Claim 1?

MR. GRON: There is no residence time.

JUDGE ADAMS: So why do you keep telling me what the residence time is?

MR. GRON: Because --

JUDGE ADAMS: In each example you emphasize the residence time in the reactor, and the claim doesn't require that. So why are we talking about that?

MR. GRON: Because we have the specific times which shows there's a difference -- you just indicated, Your Honor, why isn't just any disclosure of minutes or any disclosure of seconds sufficient. It's not. Because it doesn't produce the same steady state in a sufficient amount of time. That's why it's important.

The examples we have show that the time is very important.

JUDGE ADAMS: Okay.

MR. GRON: So we asked the Examiner, please tell us how we get the metering times? How do we get up to this rate in these periods of time? He said, first of all, look at the generic teaching of the continuous rate. Of course, it doesn't have any metering times whatsoever. He said look at Table 6 and look at the time it takes to get up to the initial temperature -- excuse me, the temperature for initiating the reaction.

He pointed to various starter types materials, and then the time to exothermic peak, and then time to completion. Now, that's very important that you note that time to completion because we have a continuous reaction.

Now, what's going on in these examples is actually -- O'Connor is only interested in optimum starting materials. He found that if you have a large distance between the two alcohol groups, or the three alcohol groups under diol triols, therefore one part hangs onto the catalyst and the other part is available for reacting.

So the larger the distance between the alcohol groups, the better the starter. So he's looking for the best starters. He admits throughout that because I'm looking for the starters, I'm not going to start off this reaction immediately. The minute I get it started, game over. That's it. I don't have to look any further.

So, consequently, he only puts a very specific amount of starter, catalyst, and alkylene oxide in the pot initially. Then he tries to get it to start, and then he measures how quickly it starts. That's what he's doing in that example.

There's no metering in up to a constant rate and continuous metering of the starter material, the alkylene oxide, the withdrawing.
Now, he does say in the column that it's possible. It takes a lot of experimentation to give that a dry, and this is a very finicky catalyst, very finicky reaction. It sounds like undue experimentation to me.
JUDGE WALSH: In the examples in Table 6, that's basically batch process --
MR. GRON: Batch process.
JUDGE WALSH: -- according to your --
MR. GRON: As a matter of fact, in Column 6 it says that, Your Honor.
JUDGE WALSH: My question is: because of O'Connor's disclosure elsewhere in the document that a continuous process can be done, don't these numbers and time periods that are given in Table 6 -- don't they tell us the addition for a continuous process would be in about that ball park of time? Why isn't that telling you the same --
MR. GRON: A suggestion maybe, or obvious to try, Your Honor? Give it a shot?
It's possible to do it. But this is an anticipation rejection. We need every step in the reference, and it doesn't have it. Not a one.
As a matter of fact, at Column 6 it specifically says -- I'm pointing to Column 6, starting at line 41 all the way down to around 53. It says: "The data in Table 2-6 are based on the procedure of adding starter, PO" -- alkylene oxide -- "and catalyst initially."
There is no metering in until we get up to steady state of either the alkylene oxide or the starter material. You add everything into the pot.

JUDGE ADAMS: So distilling your arguments all the way down, essentially your argument is that the rejection before us is an anticipation rejection.

O'Connor fails to meet the requirements because it fails to teach metering in of its alkylene oxide, it fails to teach a continuous operation of the reactor, and -- there was one other thing you said it fails to teach?

MR. GRON: It fails to teach withdrawing, adding the catalyst, continuing all these other processes. It doesn't teach any of it.

JUDGE ADAMS: Okay.

JUDGE WALSH: Looking at Column 14, in that passage at Column 14, around lines 26 to 34.

MR. GRON: Yes?

JUDGE WALSH: It says in a continuous process product is continuously removed.

MR. GRON: That's right.

JUDGE WALSH: I agree it doesn't use the word metering, but here's my question for you. If it says there that: "DMC catalyst, propylene oxide, water or propylene glycole could be fed into the reactor continuously"... Now, I agree I don't see the word metering.

MR. GRON: Right.

JUDGE WALSH: But if he says it's fed continuously, how else would it have been done other than by metering? Why isn't this a disclosure just using different words?

MR. GRON: Excellent question, Your Honor. We have the six examples at the end. When we add them in there too quickly, it doesn't work. It takes

like four times, five times the amount of time to reach steady state. If we do it metered in at the times we set, we can establish steady state within about five sequential periods. If we go past the amount of time that we have set, now all of a sudden we're again back to 25 metering steps. No one recognized that if you set the amount of time, the sequence of addition, and the amount of time to reach up to continuous steady state batch addition -- and if you do it within the periods of time that you have there -- you can establish the steady state of the reaction much faster than you could if you went outside those boundaries.

The reference teaches either you add everything initially, which is the five seconds, which says it's no good; or if you went later, it's no good again. We have a very specific metering time.

JUDGE ADAMS: If I can distill it down again, your argument would be even if it could be said that O'Connor teaches these specific steps, it does so generically; and there's nothing leading you to the specific time periods that we're talking about.

MR. GRON: Exactly, Your Honor, and that has a very, very beneficial result.

JUDGE ADAMS: That's from your specification examples.

MR. GRON: Any further questions?

JUDGE GREEN: No.

JUDGE WALSH: No.

JUDGE ADAMS: Thank you.

(Whereupon, the proceedings at 9:18 a.m. were concluded.)